



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C., 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

MAY - 8 2018

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Eric Eldreth
Owner
Innovative Diesel, LLC
EcoInjection, LLC
20 Woodchip Road
Elkton, MD 21921

Re: Notice of Violation of the Clean Air Act

Dear Mr. Eldreth:

The United States Environmental Protection Agency ("EPA") has investigated and continues to investigate Innovative Diesel, LLC and EcoInjection, LLC (collectively, "Innovative Diesel") for compliance with the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401–7671q, and its implementing regulations. As summarized in this Notice of Violation ("NOV"), the EPA has determined that Innovative Diesel manufactured, offered for sale, sold, and/or installed parts or components that have a principal effect of altering or bypassing emission control systems or elements of design on motor vehicles or motor vehicle engines. Such emission control systems and elements of design are installed by vehicle or engine original equipment manufacturers ("OEM") in order to comply with CAA emission standards. The EPA has also determined that Innovative Diesel knew or should have known that these parts or components were offered for sale or installed for such use or put to such use. Therefore, Innovative Diesel violated section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B).

Law Governing Alleged Violations

This NOV arises under Part A of Title II of the CAA, 42 U.S.C. §§ 7521–7554, and the regulations promulgated thereunder. In creating the CAA, Congress found, in part, that "the increasing use of motor vehicles . . . has resulted in mounting dangers to the public health and welfare."¹ Congress' purpose in creating the CAA, in part, was "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the

¹ CAA § 101(a)(2), 42 U.S.C. § 7401(a)(2).

productive capacity of its population,” and “to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution.”²

The EPA’s allegations here concern parts or components for motor vehicles and engines subject to emission standards.³ The CAA requires the EPA to prescribe and revise, by regulation, standards applicable to the emission of any air pollutant from new motor vehicles or new motor vehicle engines that cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.⁴ As required by the CAA, the emission standards “reflect the greatest degree of emission reduction achievable through the application of [available] technology.”⁵ There are specific emission standards for each of these motor vehicles and engines for each pollutant and year of manufacture.⁶

The CAA makes it a violation “for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use.”⁷ It is also a violation to cause any of the foregoing acts.⁸

EPA Certification Program

The EPA administers a certification program to ensure that every motor vehicle and motor vehicle engine introduced into United States commerce satisfies applicable emission standards. Under this program, the EPA issues certificates of conformity (“COCs”), and thereby approves the introduction of motor vehicles or motor vehicle engines into United States commerce. To obtain a COC, a vehicle manufacturer must submit a COC application to the EPA for each engine family or test group of vehicles that it intends to enter into United States commerce.⁹ The COC application must include, among other things, identification of the covered engine family, a description of the motor vehicle or engine and its emission control systems, all auxiliary

² CAA § 101(b)(1)-(2), 42 U.S.C. § 7401(b)(1)-(2).

³ See generally 40 C.F.R. Part 86, Subpart A (setting emission standards for these categories).

⁴ CAA §§ 202(a)(1) and (3)(B), 42 U.S.C. §§ 7521(a)(1) and (3)(B).

⁵ CAA § 202(a)(3)(A)(i), 42 U.S.C. § 7521(a)(3)(A)(i).

⁶ See, e.g., heavy-duty diesel engine emission standards at 40 C.F.R. §§ 86.004-11, 86.007-11, 86.099-11 and light-duty vehicle emission standards at 40 C.F.R. § 86.1811-04. See also 40 C.F.R. §§ 86.090-8 (1990 and later model year light-duty vehicles); 86.094-9 (1994 and later model year light-duty trucks); 86.001-9 (2001 and later model year light-duty trucks); 86.004-9 (2004 and later model year light-duty trucks); 86.091-10 (1991 and later model year Otto-cycle heavy-duty engines and vehicles); 86.008-10 (2008 and later model year Otto-cycle heavy-duty engines and vehicles).

⁷ CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B).

⁸ CAA § 203(a), 42 U.S.C. § 7522(a).

⁹ See 40 C.F.R. §§ 86.004-21 and 86.1844-01. Motor vehicles can be certified in a motor vehicle test group or engine family. For simplicity, for the remainder of this NOV, EPA will use the nomenclature “motor vehicles” to refer to both motor vehicles and motor vehicle engines.

emission control devices (“AECDs”)¹⁰ and the engine parameters they sense, as well as test results from a test vehicle or engine showing that it satisfies the applicable emission standards.¹¹

Motor vehicle manufacturers employ many devices and elements of design to meet emission standards to obtain COCs. *Element of design* means “any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.”¹² For example, manufacturers employ retarded fuel injection timing as a primary emission control device for emissions of oxides of nitrogen (“NOx”). Manufacturers also employ certain hardware devices as emission control systems to manage and treat exhaust to reduce levels of regulated pollutants from being created or emitted into the ambient air. For diesel-fueled motor vehicles, these devices include diesel particulate filters, exhaust gas recirculation (“EGR”), diesel oxidation catalysts, and selective catalytic reduction. All modern motor vehicles are equipped with electronic control modules (“ECMs”). ECMs continuously monitor engine and other operating parameters and control the emission control devices, such as the fueling strategy.

Also, an onboard diagnostic system (“OBD”) with the capacity to detect, identify and record malfunctions must be installed and operated on motor vehicles under section 202(m) of the CAA, 42 U.S.C. § 7521(m), and the implementing regulations.¹³ Manufacturers are required to demonstrate (using EPA specified test procedures) that the OBD system detects and identifies malfunctions, including any sensor or other component deterioration or malfunction which renders that sensor or component incapable of performing its function as part of the OBD system, including the oxygen sensor on vehicles equipped with an oxygen sensor.¹⁴ Oxygen sensors are categorized in EPA’s regulations as a “major” diagnostic monitor tracked by an OBD system, along with monitors for the catalyst/exhaust aftertreatment devices, engine misfire, and evaporative leaks.¹⁵

Alleged Violations

The EPA has determined that Innovative Diesel manufactured, offered for sale, sold, and/or installed parts or components that have a principal effect of altering or bypassing emission control systems or elements of design on motor vehicles, primarily diesel trucks manufactured by Ford Motor Co. (“Ford”). Innovative Diesel sold two main categories of these “defeat device” products: exhaust emission control delete hardware (sometimes referred to as “straight pipes”); and aftermarket ECM programmers (including “tuners” and software commonly referred to as

¹⁰ An AECD is “any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.” 40 C.F.R. § 86.082-2.

¹¹ 40 C.F.R. §§ 86.004-21, 86.007-21, 86.094-21, 86.096-21; *see also* EPA, *Advisory Circular Number 24-3: Implementation of Requirements Prohibiting Defeat Devices for On-Highway Heavy-Duty Engines* (Jan. 19, 2001).

¹² 40 C.F.R. § 86.1803-01. *See also* 40 C.F.R. § 86.094-2.

¹³ *See* 40 C.F.R. §§ 86.005-17, 86.007-17, 86.1806-05; and § 86.1806-17 (for model year 2017 and later vehicles).

¹⁴ *See* 40 C.F.R. § 86.1806-05(i).

¹⁵ *See id.* (using the more general term “exhaust aftertreatment devices” and including diesel exhaust gas recirculation, if equipped).

“tunes”). The EPA’s preliminary findings regarding Innovative Diesel’s sales transactions from January 1, 2015, to November 15, 2016, are identified in the table below.

Defeat Device Product	Effect on Motor Vehicle and Engine Emission Control Systems and Elements of Design	Approximate Quantity of Defeat Devices Products Sold
SCT X4 Ford Power Flash Programmer (P/N 7015)	Disables EGR system and OBD oxygen sensors	3,340
SCT Ford Livewire TS Performance Programmers and Monitors (P/N 5015)	Disables EGR system and OBD oxygen sensors	1,527
MBRP 4” PLM Series Turbo-Back Exhaust System for 2003-2007 Ford 6.0L Powerstroke (P/N S6212PLM, S6212SLM, and S6212BLK)	Removes catalytic converter	9
TOTAL		4,876

Innovative Diesel sold tuners identified as the SCT X4 Ford Power Flash Programmer (P/N 7015) (“SCT X4”) and the SCT Ford Livewire TS Performance Programmers and Monitors (P/N 5015) (“SCT Livewire”). These “defeat device” products disable or remove EGR systems on Ford diesel trucks. From January 1, 2015, through November 15, 2017, Innovative Diesel sold at least 3,340 SCT X4 7015 parts and at least 1,527 SCT Livewire TS 5015 parts. Innovative Diesel also sold straight pipes identified as the MBRP 4” PLM Series Turbo-Back Exhaust System for 2003-2007 Ford 6.0L Powerstroke (P/N S6212PLM, S6212SLM, and S6212BLK) (“MBRP straight pipe”). From January 1, 2015, through November 15, 2017, Innovative Diesel sold at least nine MBRP straight pipes. As of the date of this letter, Innovative Diesel continues to offer these tuners and straight pipes for sale on its website: <http://www.innovativediesel.com>.

Innovative Diesel knew or should have known that these products were sold, offered for sale, or installed in order to bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants. User instructions for both the SCT X4 and SCT Livewire tuners state that the products can disable OBD functions once the EGR has been mechanically removed. The instructions also state that the products can disable rear oxygen sensors and OBD functions associated with rear oxygen sensors. These products alter the OEM’s ECMs insofar as they change the motor vehicle and engine fueling, and subsequent emission control strategies.

In addition to offering these products for sale separately, Innovative Diesel offers these products for sale as part of a “power package,” which includes an SCT tuner along with custom tuning and delete hardware. As an example, a customer can select a “power package” that includes an SCT X4 tuner, “Xtreme X” custom tuning, and an MBRP straight pipe. The MBRP straight pipe enables removal of the catalytic converter. The hardware and software components of the “power package” disable OBD diagnostic monitors and the associated malfunction indicator light (MIL) that would otherwise be triggered when a properly functioning system detects removal of the catalytic converter.

Through the sale of these tunes and tuners, Innovative Diesel rendered inoperative the OEM's software. The OEM's software controls elements of design and receives inputs from emission control devices, whereas the tunes and tuners that Innovative Diesel sold change these elements of design and allow motor vehicles to function with altered inputs from emission control devices. For example, as stated above, the OBD system is an element of design that motor vehicle manufacturers employ to meet emission standards, and must be described in great detail in OEM applications to the EPA for COCs. Innovative Diesel's products disrupt the capacity of the OBD system to detect, identify, and record malfunctions.

The requirements of Title II, including the prohibition of section 203(a)(3)(B), against defeat devices, apply to a "motor vehicle" or "motor vehicle engine." Innovative Diesel may claim that its products are for off-road or competition use, and therefore not used on "motor vehicles" subject to the Title II requirements, but there is no use-based exemption under section 203(a) or under the definition of motor vehicle in section 216(2) of the Act.¹⁶ Furthermore, Innovative Diesel knew or should have known that these products were sold, offered for sale, or installed on motor vehicles because each product was designed and marketed for use on a specific make, model, and year of motor vehicles, thus altering the OEM configuration certified by EPA for a specific model year. Innovative Diesel specifically advertises the SCT Livewire TS 5015 and SCT X4 7015 products for model years 2003-2007 Ford F-series trucks with 6.0 liter Powerstroke diesel engines.

For all of these reasons, Innovative Diesel knew or should have known that they sold and offered for sale parts or components for motor vehicles or motor vehicle engines with a principal effect of bypassing, defeating, or rendering inoperative devices or elements of design that control emissions of regulated air pollutants.¹⁷

Response to Request for Information

The violations of section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), described in this NOV are based, in part, on Innovative Diesel's responses to the EPA's Request for Information letter ("RFI"), issued to Innovative Diesel on July 11, 2017, under section 208(a) of the CAA, 42 U.S.C. § 7542(a). As stated in the RFI, Innovative Diesel must promptly supplement its response in the event that Innovative Diesel learns that it possesses responsive information not yet produced, or gains possession, custody, or control of responsive information after initially responding to the RFI. Furthermore, Innovative Diesel certified under penalty of law on November 1, 2017, that the information provided is true and complete.

¹⁶ 42 U.S.C. § 7550(2).

¹⁷ EPA has initiated enforcement actions that are now concluded for similar operations. *See, e.g., In re H & S Performance, LLC*, Consent Agreement and Final Order (EAB Dec. 17, 2015) (CAFO resolving civil liability for purveyors of custom software defeat devices that utilized Bully Dog platforms); *see also United States v. Edge Products, LLC*, No. 1:13cv00010-TS (Dist. Utah April 23, 2013); *United States v. Casper's Electronics, Inc.*, No. 1:06cv3542 (N.D. Ill Aug. 28, 2007).

Enforcement

The EPA may bring an enforcement action for violations of section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), under its administrative authority or request that the United States Department of Justice file a civil complaint in federal district court.¹⁸ Persons who violate section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), may be subject to an injunction and/or civil penalty of up to \$4,619 for each violation.¹⁹

The EPA may also bring an enforcement action for violations of section 203(a)(2)(A) of the CAA, 42 U.S.C. § 7522(a)(2)(A), for failure provide information required under section 208(a) of the CAA, 42 U.S.C. § 7542(a), under its administrative authority or request that the United States Department of Justice file a civil complaint in federal district court.²⁰ Persons who violate section 203(a)(2)(A) of the CAA, 42 U.S.C. § 7522(a)(2)(A), may be subject to an injunction and/or civil penalty of up to \$46,192 per day of violation.²¹

The EPA is available to discuss this matter with you in further detail upon your request. Please have your attorney contact Meetu Kaul, the EPA attorney assigned to this matter, within 10 days of receipt of this Notice of Violation. Ms. Kaul can be reached at (202) 564-5472 or Kaul.Meetu@epa.gov.

Sincerely,



Phillip A. Brooks
Director
Air Enforcement Division
Office of Civil Enforcement

Cc (via e-mail): Stewart D. Cables, Partner
Hassan+Cables, LLC
1035 Pearl Street, Suite 200
Boulder, CO 80302

¹⁸ CAA §§ 204 and 205, 42 U.S.C. §§ 7523 and 7524.

¹⁹ *Id.*; the EPA has implemented statutorily-mandated inflation adjustments by periodically updating maximum penalty levels as codified at 40 C.F.R. § 19.4.

²⁰ CAA §§ 204 and 205, 42 U.S.C. §§ 7523 and 7524.

²¹ *Id.*; 40 C.F.R. § 19.4.